

**WHAT IS CLAIMED IS:**

1. An aluminum alloy comprising up to about 4.5 wt % copper, from about 0.6 to 6.0 wt % magnesium and from about 0.01 to 0.99 wt % lithium.
2. The aluminum alloy of Claim 1, wherein  
5 said lithium content is from about 0.25 to 0.99 wt %.
3. The aluminum alloy of Claim 2, wherein  
10 said lithium content is from about 0.25 to 0.95 wt %.
4. The aluminum alloy of Claim 3, wherein  
15 said lithium content is from about 0.35 to 0.95 wt %.
5. The aluminum alloy of Claim 1, including  
20 a dispersoid selected from the group consisting of chromium, vanadium, titanium and zirconium and mixtures thereof in the amount of from about 0.0 to 0.6 wt %.
6. The aluminum alloy of Claim 1, including  
25 a dispersoid selected from the group consisting of manganese, nickel, iron, hafnium, scandium and mixtures thereof in the amount of from about 0.0 to 1.0 wt %.
7. The aluminum alloy of Claim 1, including  
30 a first dispersoid selected from the group consisting of chromium, vanadium, titanium, zirconium and mixtures thereof in the amount of from about 0.0 to 0.6 wt % and a second dispersoid selected from the group consisting of manganese, nickel, iron, hafnium, scandium and mixtures thereof in the amount of from about 0.04 to 1.0 wt %.

8. The aluminum alloy of Claim 1, including other alloying elements selected from the group consisting of zinc, silver, silicon and mixtures thereof in the amount of from about 0.0 to 2.0 wt %.

5 9. A damage tolerant aircraft part made from the alloy of Claim 1.

10. 10. A fuselage section made from the alloy of Claim 1.

10 11. A lower wing section made from the alloy of Claim 1.

12. An aluminum alloy comprising copper, magnesium and lithium, the lithium content being from about 0.01 to 0.99 wt % and the copper and magnesium weight percent values falling within a closed area on a graph with wt % copper on the x-axis and wt % magnesium on the y-axis, said closed area being bounded by generally straight lines joining the following points:

POINT 1 = 0 Cu. 0.6 Mg

POINT 2 = 4.5 Cu, 0.6 Mg

POINT 3 = 4.5 Cu, 6.0 Mg

POINT 4 = 0 Cu, 6.0 Mg

and back to POINT 1.

20 13. The aluminum alloy of Claim 12, wherein the copper and magnesium weight percent values fall within a 25 closed area on a graph with wt % copper on the x-axis and

wt % magnesium on the y-axis, said closed area being bounded by generally straight lines joining the following points:

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POINT 1 = 0 Cu, 0.6 Mg  
 POINT 2 = 4.5 Cu, 0.6 Mg  
 POINT 3 = 4.5 Cu, 2.3 Mg  
 POINT 4 = 2.0 Cu, 6.0 Mg  
 POINT 5 = 0 Cu, 6.0 Mg  
 and back to POINT 1.

14. The aluminum alloy of Claim 12, wherein the  
10 copper and magnesium weight percent values fall within a  
closed area on a graph with wt % copper on the x-axis and  
wt % magnesium on the y-axis, said closed area being bounded  
by generally straight lines joining the following points:

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POINT 1 = 0 Cu. 0.6 Mg  
 POINT 2 = 4.5 Cu, 0.6 Mg  
 POINT 3 = 1.5 Cu, 6.0 Mg  
 POINT 4 = 0 Cu, 6.0 Mg  
 and back to POINT 1.

15. The aluminum alloy of Claim 12, wherein the copper and magnesium weight percent values fall within a closed area on a graph with wt % copper on the x-axis and wt % magnesium on the y-axis, said closed area being bounded by generally straight lines joining the following points:

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POINT 1 = 0 Cu. 0.6 Mg  
POINT 2 = 4.5 Cu, 0.6 Mg  
POINT 3 = 4.5 Cu, 2.0 Mg  
POINT 4 = 0 Cu, 2.0 Mg  
and back to POINT 1.

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16. The aluminum alloy of Claim 12, wherein  
said lithium content is from about 0.25 to  
0.99 wt %.

17. The aluminum alloy of Claim 16, wherein  
said lithium content is from about 0.25 to  
0.95 wt %.

5 18. The aluminum alloy of Claim 17, wherein  
said lithium content is from about 0.35 to  
0.95 wt %.

10 19. The aluminum alloy of Claim 12, including  
a dispersoid selected from the group consisting  
of chromium, vanadium, titanium and zirconium and mixtures  
thereof in the amount of from about 0.0 to 0.6 wt %.

15 20. The aluminum alloy of Claim 12, including  
a dispersoid selected from the group consisting  
of manganese, nickel, iron, hafnium, scandium and mixtures  
thereof in the amount of from about 0.0 to 1.0 wt %.

21. The aluminum alloy of Claim 12, including  
a first dispersoid selected from the group  
consisting of chromium, vanadium, titanium, zirconium and  
mixtures thereof in the amount of from about 0.0 to 0.6 wt %  
and a second dispersoid selected from the group consisting of  
20 manganese, nickel, iron, hafnium, scandium and mixtures  
thereof in the amount of from about 0.04 to 1.0 wt %.

22. The aluminum alloy of Claim 12, including  
other alloying elements selected from the group  
consisting of zinc, silver, silicon and mixtures thereof in  
25 the amount of from about 0.0 to 2.0 wt %.

23. A damage tolerant aircraft part made from the  
alloy of Claim 12.

24. A fuselage section made from the alloy of  
Claim 12.

25. A lower wing section made from the alloy of  
Claim 12.

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